Claim 158

(a) A method for producing a plasma display, comprising

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1	All Claims and Title	A method for producing a plasma display
2	Page 3, first paragraph, lines 1 and 2	The present invention relates to a new method for producing a plasma display panel.

(a) A method for producing a plasma display, comprising

U.S. Application		
1	Title	A method and apparatus for producing a plasma display
2	Page 1, second paragraph, lines 1 and 2	The present invention relates to a method and apparatus for producing a new plasma display
3	Page 5, first paragraph	The method for producing a plasma display of the present invention comprises the step of continuously applying a phosphor paste containing a phosphor powder and an organic compound onto a substrate with a plurality of barrier ribs from a paste applicator with a plurality of outlet holes, to form a phosphor layer.
4	Page 5, second paragraph, lines 1-2	The method for producing a plasma display of the present invention includes the following preferable embodiments.
5	The paragraph spanning Pages 17 and 18	A plasma display mainly consists of a front glass substrate and a rear glass substrate, and has a rare gas contained between the substrates sealed.
6	Claim 1	A method for producing a plasma display, comprising the step of continuously applying a phosphor paste containing a phosphor powder and an organic compound onto a substrate with a plurality of barrier ribs, from a paste applicator with a plurality of outlet holes, to form a phosphor layer.

(b) applying, in stripes between barrier ribs, a phosphor paste

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1	Claim 3	A method for producing a plasma display, according to claim 1, wherein fluorescent material layers different in color are formed in stripes.
2	Page 5, first paragraph	In the method of the present invention, a glass substrate 3 with electrodes 1 and partitions 2 formed on it is partially coated with a fluorescent paste, particularly fluorescent materials emitting light of three primary colors of red, blue and green in stripes, to form a red fluorescent material layer 4, a blue fluorescent material layer 5 and a green fluorescent material layer 6 respectively.
3	Page 7, first paragraph, lines 5-9	If the fluorescent material layer is formed not only on the spaces between the partitions but also along the lateral sides of the partitions, the fluorescent material face can have a larger area, to effectively improve the luminance of the plasma display.
4	Page 22, last paragraph	A glass substrate with an electrode layer and a partition layer formed on it is coated with fluorescent pastes at desired places. For coating, each of the fluorescent pastes is discharged from a paste applicator with one or more outlet holes. The florescent pastes of R, G and B colors are applied in stripes by turns, to form fluorescent material layers of respective colors.
5	Page 23, second paragraph	Each of the fluorescent materials of a plasma display is required

		to have a thickness of 10 to 50 μm on the bottoms of the spaces between the respectively adjacent partitions and along the lateral sides (as a thickness measured at a half-height position of each partition) of the partitions.
6	Page 27, second paragraph	A glass substrate with two thousand 120 μm high 30 μm wide partitions formed at a pitch of 150 μm was coated with the respective pastes of red, green and blue in stripes.
7	Page 28, last paragraph	A glass substrate with two thousand 140 μm high 50 μm wide partitions formed at a pitch of 360 μm was coated with the respective pastes of red, green and blue in stripes.
8	Page 30, first paragraph	A glass substrate with two thousand 120 μm high 30 μm wide partitions formed at a pitch of 150 μm was coated with the respective pastes of red, green and blue in stripes.

(b) applying, in stripes between barrier ribs, a phosphor paste

U.S. Application		
1	Claim 2	A method for producing a plasma display, comprising the steps of coating a substrate with a plurality of barrier ribs with three phosphor pastes respectively containing a phosphor powder emitting light of red, green or blue, as stripes in the spaces between the respectively adjacent barrier ribs from a paste applicator with outlet holes, and heating to form a phosphor layer.
2	Claim 3	A method for producing a plasma display, according to claim 1 or 2, wherein the space (S) between the respective adjacent barrier ribs and the average diameter (D) of the outlet holes satisfy the following formula: $10\ \mu m \leqq D \leqq S \leqq 500\ \mu m$.
3	Claim 30	A method for producing a plasma display, according to claim 1 or 2, wherein the barrier ribs are provided as stripes with the following dimensions: Pitch: 100-250 μm, Width: 15-40 μm, Height: 60-170 μm.
4	Page 5, lines 7-14	The method for producing a plasma display of the present invention also comprises the steps of coating a substrate with a plurality of barrier ribs, with three phosphor pastes respectively containing a phosphor powder emitting light of red, green or blue, as stripes in the spaces between the barrier ribs on the substrate, from a paste applicator with outlet holes, and heating to form a phosphor layer.

5	Page 20, lines 4-7	The barrier ribs can be formed as stripes or lattice for partitioning the electric discharges of the respective electric discharge cells. Barrier ribs formed as stripes are preferable since they can be formed simply at a low cost.
6	Page 37, third paragraph, lines 2-8 and Fig. 1	A phosphor paste prepared as described above is applied to the spaces between the respective adjacent barrier ribs of the substrate with a plurality of barrier ribs. Fig. 1 shows a state where the phosphor paste is applied from the outlet holes of a paste applicator to coat the spaces between the respectively adjacent phosphor *(should be read as barrier ribs)* of the substrate provided with electrodes, dielectric and barrier ribs.
7	Abstract, second paragraph, lines 6-12	-- Furthermore, the present invention comprises the steps of coating a substrate with a plurality of barrier ribs, with three phosphor pastes respectively containing a phosphor powder emitting light of red, green or blue, as stripes in the spaces between the respectively adjacent barrier ribs on the substrate, from a paste applicator with outlet holes, and heating to form a phosphor layer.

(c) containing a phosphor powder and an organic compound

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1	Claim 5	A method for producing a plasma display, according to claim 4, wherein the fluorescent powder is 1 to 15 μm in the grain size of 50 vol% of the grains and 0.1 to 2 m^2/g in the specific surface area.
2	Claim 6	A method for producing a plasma display, according to claim 1, wherein the fluorescent paste has the following composition, Organic component: 15-60 parts by weight, Fluorescent powder: 40-85 parts by weight, Solvent: 10-50 parts by weight.
3	Claim 8	A method for producing a plasma display, according to claim 1, wherein the organic binder contains 10 wt% or more of a photosensitive compound.
4	the paragraph spanning Page 7 and the text extending through Page 11 through the second full paragraph	The fluorescent powders used in the present invention are not especially limited. For example, ----- (Page 7, line 22 - Page 10, line 15). The organic component used in the present invention contains an organic binder ----- (Page 10, line 16 - Page 11, line 10).

(c) containing a phosphor powder and an organic compound

U.S. Application		
1	Claim 29	A method for producing a plasma display, according to claim 28, wherein each of the photosensitive phosphor pastes used ahs the following composition: Organic component: 15-60 parts by weight, Phosphor powder: 40-85 parts by weight, Solvent: 10-50 parts by weight.
2	Page 20, last paragraph through Page 24, second full paragraph	The phosphor powders used emit light of red, green and blue. As the phosphor powders used in the present invention, ----- (Page 21, line 2 - Page 23, line 11). The organic component used in the present invention contains a binder resin, ------ (Page 23, line 12 - Page 24, line 8).

(d) onto a substrate

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1	Fig. 1	8: paste applicator, 7: outlet hole, 2: partitions, 3: glass substrate, 1: electrodes
2	Claim 1	A method for producing a plasma display, in which a glass substrate with partitions formed on it is coated with a fluorescent paste containing a fluorescent material and an organic binder discharged from a paste applicator with outlet holes, and the paste is burned to form a fluorescent material layer, characterizes in that the spaces A between the respectively adjacent partitions and the average diameter B of the outlet holes satisfy the following condition: 500 μm ≧ A > B ≧ 10 μm.
3	The paragraph spanning Pate 4 and Page 5	The object of the present invention can be achieved by a method for producing a plasma display, in which a glass substrate with partitions formed on it is coated with a fluorescent paste containing a fluorescent material and an organic binder discharged from a paste applicator with outlet holes, and the paste is burned to form a fluorescent material layer, characterized in that the space A between the respectively adjacent partitions and the average diameter B of the outlet holes satisfy the following condition: 500 μm ≧ A > B ≧ 10 μm.
4	Page 5, first paragraph	In the method of the present invention, a glass substrate 3 with

		electrodes 1 and partitions 2 formed on it is partially coated with a fluorescent paste, particularly fluorescent materials emitting light of three primary colors of red, blue and green in stripes, to form a red fluorescent material layer 4, a blue fluorescent material layer 5 and a green fluorescent material layer 6 respectively.
5	Page 23, third paragraph	The coating is followed by drying. If the coated substrate is dried with the coated side turned downward, the fluorescent material layers of the respective colors can be formed uniformly on the bottoms of the spaces between the respectively adjacent partitions and along the lateral sides. The angle of the substrate with the coated side turned downward is 0 to 30 degrees as an angle formed between the glass substrate and the horizontal plane. The drying temperature and time depend on the paste compositions and viscosities, but it is preferable to dry at 50 to 200℃ for 5 to 60 minutes.

(d) onto a substrate

U.S. Application		
1	Claim 1	A method for producing a plasma display, comprising the step of continuously applying a phosphor paste containing a phosphor powder and an organic compound onto a substrate with a plurality of barrier ribs, from a paste applicator with a plurality of outlet holes, to form a phosphor layer.
2	Page 5, first paragraph, lines 1-6	The method for producing a plasma display of the present invention comprises the step of continuously applying a phosphor paste containing a phosphor powder and an organic compound onto a substrate with a plurality of barrier ribs from a paste applicator with a plurality of outlet holes, to form a phosphor layer.
3	Page 20, first paragraph, lines 1-4	Especially in the present invention, a phosphor layer can be formed on a glass substrate with highly precise barrier ribs, though it is difficult to do so by conventional screen printing.
4	The paragraph spanning Pages 20 and 21	In the present invention, onto the glass substrate with the barrier ribs as described above, pastes respectively containing a phosphor powder are applied from a paste applicator with a plurality of outlet holes, for forming the phosphor layer.
5	Figs. 1-2 and Page 37, third paragraph	-----Fig. 1 shows a state where the phosphor paste is applied from the outlet holes of a paste applicator to coat the spaces between the respectively adjacent phosphor *(should be read as barrier ribs)* of the substrate provided with electrodes, dielectric and barrier ribs. -----

6	Page 42, first paragraph	In the heating of this case, the phosphor is usually dried with the coating surface turned up, but can also be dried with the coating surface turned down. If the phosphor coating surface is turned down, the phosphor paste runs down along the lateral sides of the barrier ribs, to form a phosphor layer also as the lateral side wall along each barrier ribs. If the phosphor layer is formed not only as the bottom wall but also as the lateral side wall along each barrier rib, the area of the phosphor surface can be enlarged, to improve the luminance of the plasma display.
7	Figs 3 and 4, and Page 52, lines 16-20	As a result, the centers of all the outlet holes of the paste applicator 20 are positioned above the respective spaces between the barrier ribs to be coated with the phosphor paste, to complete the relative positioning between the paste applicator 20 and the substrate 4.

(e) having a plurality of the barrier ribs formed thereon,

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1	Claim 1	A method for producing a plasma display, in which a glass substrate with partitions formed on it is coated with a fluorescent paste containing a fluorescent material and an organic binder discharged from a paste applicator with outlet holes, and the paste is burned to form a fluorescent material layer, characterizes in that the spaces A between the respectively adjacent partitions and the average diameter B of the outlet holes satisfy the following condition: 500 μm ≧ A > B ≧ 10 μm.
2	Page 5, line 6	partitions 2 formed on it
3	Page 6, second paragraph, line 4	the partitions 2 are formed at a pitch of 80 μm to 500 μm,
4	Page 23, second paragraph, lines 3-5	the spaces between the respectively adjacent partitions and along the lateral sides (as a thickness measured at a half-height position of each partition) of the partitions.
5	Page 27, second paragraph	A glass substrate with two thousand 120 μm high 30 μm wide partitions formed at a pitch of 150 μm
6	Page 28, last paragraph	A glass substrate with two thousand 140 μm high 50 μm wide partitions

		formed at a pitch of 360 μm
7	Page 29, first paragraph	A glass substrate with two thousand 120 μm high 30 μm wide partitions formed at a pitch of 150 μm
8	Fig. 1	2: partitions

(e) having a plurality of the barrier ribs formed thereon,

U.S. Application		
1	Claim 1	A method for producing a plasma display, comprising the step of continuously applying a phosphor paste containing a phosphor powder and an organic compound onto a substrate with a plurality of barrier ribs, from a paste applicator with a plurality of outlet holes, to form a phosphor layer.
2	Page 5, lines 2-7	The method for producing a plasma display of the present invention comprises the step of continuously applying a phosphor paste containing a phosphor powder and an organic compound onto a substrate with a plurality of barrier ribs from a paste applicator with a plurality of outlet hole, to form a phosphor layer.
3	Page 7, second full paragraph	(13) The paste applicator and the glass substrate are moved relatively each other in parallel to the barrier ribs on the glass substrate.
4	Page 8, last paragraph	(26) The barrier ribs are provided as stripes with the following dimensions:
5	Page 9, first paragraph	(27) The barrier ribs are black on the top surfaces.
6	Page 19, second full paragraph and paragraph spanning through Page 20	The barrier ribs can be formed by various methods. They can be formed, for example, by printing a pattern using a glass paste consisting of a glass powder and an organic binder containing a cellulose compound such as ethyl cellulose through a screen in a multi-layer, and burning at 450 to 600℃.

		The barrier ribs can also be formed by coating the substrate fully with a glass paste, -----
7	Page 46, last paragraph	In Figs. 3 and 4, on a base 2, a pair of grooved guide rails 8 are provided, and on the grooved guide rails 8, the table 6 is arranged. Table 6 has a plurality of suction holes 7, and a substrate 4 with barrier ribs provided at the certain pitch is fixed on the surface of the table 6 by vacuum suction. -----
8	Figs. 1-3	Fig. 1 - Barrier rib; Fig. 2 - P: Pitch barrier ribs, S: Space between adjacent barrier ribs; Fig.3 - 4: a substrate with barrier ribs

(f) from 600 to 2000 outlet holes and

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1	Page 6, lines 1-3	It is preferable to discharge the fluorescent pastes simultaneously from a paste applicator with 600 to 2500 outlet holes for discharging the respective colors of R, G and B,
2	Page 23, lines 1 and 2	So, it is preferable to discharge a fluorescent paste from a paste applicator with 1 to 2000 outlet holes,
3	Page 27, last paragraph, lines 1 and 2	For coating, from a paste applicator having 640 outlet holes with a diameter of 80 μm formed at a pitch of 450 μm, (in Example 1)
4	Page 29, paragraph 1, lines 1 and 2	For coating, a paste applicator having 1940 outlet holes with a diameter of 100 μm formed at a pitch of 360 μm and (in Example 2)
5	Page 30, second paragraph, lines 1 and 2	For coating, a paste applicator having 640 outlet holes with a diameter of 80 μm formed at a pitch of 450 μm was used (in Example 3)

(f) from 600 to 2000 outlet holes and

U.S. Application		
1	Page 5, last paragraph	(3) The paste applicator used has 20 to 2000 outlet holes, more preferably 150 to 2000 outlet holes.
2	Page 38, lines 16-23	The number of outlet holes can be 1 to 6000, but a desirable range is 20 to 200 *(should be read as 2000)*. If the number of outlet holes is too small, it takes too much time for coating. If the number is 150 or more desirably, a phosphor layer suitable for a highly precise plasma display can be formed in a short time. If the number of holes exceeds 2000, it is difficult to secure the accuracy of the outlet holes, and to provide a highly precise plasma display.
3	Page 69, lines 13 and 14	One paste applicator with 64 outlet holes with an average diameter of 150 μm formed at a pitch of 660 μm (in Example 1)
4	Page 71, lines 9-12	A phosphor layer was formed as described in Example 1, except that the number of outlet holes was 640, instead of 64, and that the coating with one-color phosphor paste was completed by one time of paste applicator movement. (in Example 4)
5	Page 74, lines 10 and 11	that a paste applicator with 640 outlet holes with a diameter of 80 μm formed at a pitch of 450 μm was used, (in Example 8)
6	Page 75, lines 4 and 5	that a paste applicator with 1940 outlet holes with a diameter of 100 μm formed at a pitch of 360 μm, (in Example 9)

7	Claims 5 and 6	5. A method for producing a plasma display, according to claim 1 or 2, wherein the paste applicator used has 20 to 2000 outlet holes. 6. A method for producing a plasma display, according to claim 5, wherein the paste applicator used has 150 to 2000 outlet holes.

(g) of an average diameter of 10 to 500 μm,

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1	Claim 1	A method for producing a plasma display, in which a glass substrate with partitions formed on it is coated with a fluorescent paste containing a fluorescent material and an organic binder discharged from a paste applicator with outlet holes, and the paste is burned to form a fluorescent material layer, characterizes in that the spaces A between the respectively adjacent partitions and the average diameter B of the outlet holes satisfy the following condition: 500 μm ≧ A > B ≧ 10 μm.
2	Page 5, lines 1-3	and the average diameter B of the outlet holes satisfy the following condition: 500 μm ≧ A > B ≧ 10 μm
3	Page 6, second paragraph, lines 1-3	It is preferable that the inner diameter of the outlet holes used in the present invention is 10 to 500 μm, and more preferable range is 50 to 200 μm.

(g) of an average diameter of 10 to 500 μm,

U.S. Application		
1	Page 5, lines 18-20	and the average diameter (D) of the outlet holes satisfy the following formula: $10\ \mu m \leqq D \leqq S \leqq 500\ \mu m$
2	Page 38, lines 4-6	The outlet holes can have an inner diameter of 10 to 500 μm, and a preferable diameter range is 50 to 500 μm.
3	Page 38, lines 11-15	and the average diameter (D) of the outlet holes satisfy the following relation, the application of the phosphor paste onto the top surfaces of the barrier ribs can be further inhibited. $10\ \mu m \leqq D \leqq S \leqq 500\ \mu m$
4	Page 60, third paragraph	It is also preferable that the average diameter of the outlet holes of the paste applicator is 10 μm to 500 μm, and not larger than the spaces between the barrier ribs, and this prevents the mixing of adjacent colors.
5	Claim 3	A method for producing a plasma display, according to claim 1 or 2, wherein the space (S) between the respective adjacent barrier ribs and the average diameter (D) of the outlet holes satisfy the

		following formula: $10\ \mu m \leqq D \leqq S \leqq 500\ \mu m$.

(h) contained in a paste applicator positioned above the substrate

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1	Page 5, third paragraph and Fig. 1	For forming the fluorescent material layers, at first, paste containing one fluorescent material selected from three colors of R, G and B is discharged from a paste applicator 8 with one or more outlet holes 7, for coating the substrate, and this operation is repeated three times for R, G and B. Then, the pastes are dried and burned, to form the fluorescent material layers. As another method, the respective fluorescent materials of R, G and B can be discharged from a paste applicator with outlet holes for simultaneously discharging R, G and B, dried and burned, to form the respective fluorescent material layers.
2	Page 22, last paragraph	A glass substrate with an electrode layer and a partition layer formed on it is coated with fluorescent pastes at desired places. For coating, each of the fluorescent pastes is discharged from a paste applicator with one or more outlet holes. The fluorescent pastes of R, G and B colors are applied in stripes by turns, to form fluorescent material layers of respective colors.
3	Page 27, last paragraph, lines 1-4	For coating, from a paste applicator having 640 outlet holes with a diameter of 80 μm formed at a pitch of 450 μm, at first the red fluorescent paste was discharged, and dried at 80℃ for 60 minutes with the coated side turned downward.

4	Page 30, second paragraph, lines 1-6	For coating, a paste applicator having 640 outlet holes with a diameter of 80 μm formed at a pitch of 450 μm was used to discharge the red fluorescent paste, the green fluorescent paste and the blue fluorescent paste in this order, and then respective pastes were dried at 80℃ for 60 minutes with the coated side turned downward.
5	Fig. 1	3: substrate, 8: paste applicator

(h) contained in a paste applicator positioned above the substrate

U.S. Application		
1	Page 5, first paragraph, lines 1-6	The method for producing a plasma display of the present invention comprises the step of continuously applying a phosphor paste containing a phosphor powder and an organic compound onto a substrate with a plurality of barrier ribs from a paste applicator with a plurality of outlet holes, to form a phosphor layer.
2	Page 13, third paragraph	(50) A reference mark detecting means for detecting a reference mark on the substrate, and a moving means and control means for relatively moving the paste applicator and the barrier ribs so that the outlet holes of the paste applicator may be located above the spaces between the barrier ribs to be coated with the phosphor paste are provided.
3	Page 37, lines 18-21 and Fig. 1	Fig. 1 shows a state where the phosphor paste is applied from the outlet holes of a paste applicator to coat the spaces between the respectively adjacent phosphor *(should be read as barrier ribs)* of the substrate provided with electrodes, dielectric and barrier ribs.
4	Page 52, lines 16-20 and Fig. 3	As a result, the centers of all the outlet holes of the paste applicator 20 are positioned above the respective spaces between the barrier ribs to be coated with the phosphor paste, to complete the relative positioning between the paste applicator 20 and the substrate 4.
5	Page 60, second paragraph	It is preferable that the centers of all the outlet holes of the paste applicator are arranged to position above the respective spaces between the barrier ribs to be coated with the phosphor paste.

6	Fig. 4	4: substrate, 20: paste applicator
7	Fig. 8	4: substrate, 801, 802: paste applicator

(i) for one of red, green or blue phosphor paste

JP '713		
1	Page 5, first paragraph	In the method of the present invention, a glass substrate 3 with electrodes 1 and partitions 2 formed on it is partially coated with a fluorescent paste, particularly fluorescent materials emitting light of three primary colors of red, blue and green in stripes, to form a red fluorescent material layer 4, a blue fluorescent material layer 5 and a green fluorescent material layer 6 respectively.
2	Page 5, third paragraph, lines 1-5	For forming the fluorescent material layers, at first, a paste containing one fluorescent material selected from three colors of R, G and B is discharged from a paste applicator 8 with one or more outlet holes 7, for coating the substrate, and this operation is repeated three times for R, G and B.
3	Page 22, fourth paragraph	(1) Coating step A glass substrate with an electrode layer and a partition layer formed on it is coated with fluorescent pastes at desired places. For coating, each of the fluorescent paste is discharged from a paste applicator with one or more outlet holes. The fluorescent pastes of R, G and B colors are applied in stripes by turns, to form fluorescent material layers of respective colors.
4	Page 27, second paragraph	A glass substrate with two thousand 120 μm high 30 μm wide partitions

		formed at a pitch of 150 μm was coated with the respective pastes of red, green and blue in stripes. (in Example 1)
5	Page 28, last paragraph	A glass substrate with two thousand 140 μm high 50 μm wide partitions formed at a pitch of 360 μm was coated with the respective pastes of red, green and blue in stripes. (in Example 2)
6	Page 30, first paragraph	A glass substrate with two thousand 120 μm high 30 μm wide partitions formed at a pitch of 150 μm was coated with the respective pastes of red, green and blue in stripes. (in Example 3)

(i) for one of red, green or blue phosphor paste

U.S. Application		
1	The paragraph spanning Pages 7 and 8	(20) A method for producing a plasma display in which three phosphor pastes respectively containing a phosphor powder emitting light of red, green or blue are applied to the spaces between respectively adjacent barrier ribs on a glass substrate, to form a phosphor plane, comprising the step of removing the phosphor existing in the portions other than the predetermined coating positions by letting them adhere to an adhesive material.
2	Page 41, first paragraph, lines 5-10	Furthermore, if three or more paste applicators are installed to apply a paste containing a phosphor material emitting light of one color from each of the three or more paste applicators, then phosphor materials of three colors, red, green and blue can be applied at a time for coating.
3	Page 70, first paragraph	The substrate coated with the red, green and blue phosphor pastes was burned at 460℃ for 15 minutes, and evaluated. The evaluation results are shown in Table 1. (in Example 1)
4	Page 75, first paragraph	A phosphor layer was formed as described in Example 8, except that a glass substrate with 2000 barrier ribs with a height of 140 μm and a width of 50 μm formed at a pitch of 360 μm, that a paste

		applicator with 1940 outlet holes with a diameter of 100 μm formed at a pitch of 360 μm, and designed to simultaneously discharge the red, blue and green phosphor pastes was used, and that the application of all the phosphor pastes was followed by drying at 80℃ for 45 minutes. The evaluation results are shown in Table 1. (in Example 9)
5	Claim 24	A method for producing a plasma display in which three phosphor pastes respectively containing a phosphor powder emitting light of red, green or blue are applied to the spaces between respectively adjacent barrier ribs on a glass substrate, to form a phosphor plane, according to claim 2, wherein the phosphor existing in the portions other than the predetermined coating positions are removed by letting them adhere to an adhesive material.

(j) such that the paste flows downwardly from all of the holes for each color of the phosphor paste at the same time and between the barrier ribs.

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1	Claim 2/1	Claim 1: A method for producing a plasma display, in which a glass substrate with partitions formed on it is coated with a fluorescent paste containing a fluorescent material and an organic binder discharged from a paste applicator with outlet holes, and the paste is burned to form a fluorescent material layer, characterizes in that the spaces A between the respectively adjacent partitions and the average diameter B of the outlet holes satisfy the following condition: 500 μm ≧ A > B ≧ 10 μm. Claim 2: A method for producing a plasma display, according to claim 1, wherein the fluorescent paste is discharged continuously from the outlet holes, to form a fluorescent material layer.
2	Page 5, third paragraph, lines 1-5 and Fig. 1	For forming the fluorescent material layers, at first, a paste containing one fluorescent material selected from three colors of R, G and B is discharged from a paste applicator 8 with one or more outlet holes 7, for coating the substrate, and this operation is repeated three times for R, G and B.
3	Page 6, third paragraph	To discharge a fluorescent paste from outlet holes, it is preferable to press the paste continuously at a pressure in a certain range, for discharging the paste by the pressure. In this case, the amount of the paste discharged can be kept constant, and a coating layer

		with a stable thickness can be obtained.
4	Page 23, first paragraph	So, it is preferable to discharge a fluorescent paste from a paste applicator with 1 to 2000 outlet holes, and to repeat this operation for R, G and B, i.e., three times in total. As another method, the fluorescent materials of respective R, G and B colors can also be discharged simultaneously from a paste applicator designed to allow simultaneous discharge of R, G and B fluorescent materials.
5	Fig. 1	8: paste applicator, 7: outlet holes, 2: partitions, 3: substrate

(j) such that the paste flows downwardly from all of the holes for each color of the phosphor paste at the same time and between the barrier ribs.

U.S. Application		
1	Page 5, first paragraph, lines 1-6	The method for producing a plasma display of the present invention comprises the step of continuously applying a phosphor paste containing a phosphor powder and an organic compound onto a substrate with a plurality of barrier ribs from a paste applicator with a plurality of outlet holes, to form a phosphor layer.
2	Page 13, third paragraph	(50) A reference mark detecting means for detecting a reference mark on the substrate, and a moving means and control means for relatively moving the paste applicator and the barrier ribs so that the outlet holes of the paste applicator may be located above the spaces between the barrier ribs to be coated with the phosphor paste are provided.
3	Page 37, third paragraph, lines 2-8 and Fig. 1	A phosphor paste prepared as described above is applied to the spaces between the respectively adjacent barrier ribs of the substrate with a plurality of barrier ribs. Fig. 1 shows a state where the phosphor paste is applied from the outlet holes of a paste applicator to coat the spaces between the respectively adjacent phosphor *(should be read as barrier ribs)* of the substrate provided with electrodes, dielectric and barrier ribs.
4	Page 49, last paragraph and Fig. 4	In Fig. 4, the paste applicator 20 has a manifold 41 which is filled with a phosphor paste 42. From outlet holes 44, the phosphor paste is applied. The paste applicator 20 is connected with a supply hose 46, being further connected with an electromagnetic change-over

		valve 48 for application, supply unit 50, suction hose 52, electromagnetic change-over valve 54 for suction and phosphor paste tank 56. The phosphor paste tank 56 stores the phosphor paste 42.
5	Page 52, lines 16-20 and Figs. 3 and 4	As a result, the centers of all the outlet holes of the paste applicator 20 are positioned above the respective spaces between the barrier ribs to be coated with the phosphor paste, to complete the relative positioning between the paste applicator 20 and the substrate 4.
6	Fig. 1	Paste applicator, Outlet holes, Barrier ribs, Substrate (glass)